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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,414	10/14/2003	Clarence T. Tegreene	MVIS 98-20 C2	8603

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Intellectual Property Counsel  
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EXAMINER

KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
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2677

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/687,414

Applicant(s)

TEGREENE ET AL.

Examiner

Vincent E. Kovalick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 53-78 is/are pending in the application.
- 4a) Of the above claim(s) 67-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 53-57, 59-61, 75 and 76 is/are rejected.
- 7) ☒ Claim(s) 58, 62-66, 77 and 78 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/14/03, 7/6/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is in response to Applicant's Response to Restriction Requirement dated May 26, 2005 in response to USPTO Office Action dated April 20, 2005.

The election without traverse, of Group I, Claims 53-66 and 75-78, drawn to a scanning beam image capture device, classified in class 345, subclass 48 has been noted and entered in the record.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. (USP 6,095,421) taken with Zouzoulas et al. (USP 5,059,778) in view of Shay (USP 5,900,886) taken with Saito et al. (5,668,648).

Relative to claim 1, Barkan et al. **teaches** an apparatus and method for scanning a symbol using an intelligent laser focus control (col. 2, lines 36-67 and col. 3, lines 1-10); Barkan et al. further **teaches** a scanned beam image capture device, comprising a visible light source; a beam director aligned to receive a beam of light from the visible light source and direct it in a scan pattern across a field of view (col. 4, lines 10-23).

Barkan et al. **does not teach** a detector aligned to receive light reflected from the field of view;

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a decoder containing first computer instructions for decoding patterns of light received by the detector; and a display controller coupled to the decoder and containing second computer instructions for modulating the visible light source to produce a variable displayed pattern of light on the field of view.

Barkan et al teaches a scanned beam image capture device, comprising a visible light source.

Zouzoulas et al. **teaches** a portable data scanner apparatus (col. 1, lines 66-67 and col. 2, lines 1-53); Zouzoulas et al. further **teaches** a detector aligned to receive light reflected from the field of view; a decoder containing first computer instructions for decoding patterns of light received by the detector (col. 10; lines 29-37).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to Barkan et al. the feature as taught by Zouzoulas et al. in order to put in place the means to receive the light signal reflected from the field of view, decoding the signal based on computer housed instructions for further processing in the system.

Barkan et al. taken with Zouzoulas et al. **does not teach** and a display controller coupled to the decoder and containing second computer instructions for modulating the visible light source to produce a variable displayed pattern of light on the field of view.

Shay **teaches** a display controller (col. 2, lines 40-67); Shay further teaches a display controller coupled to a decoder and containing computer instructions (col. 2, lines 40-42 and Abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to Barkan et al. taken with Zouzoulas et al. the feature as taught by Shay in order to put in place the means to decode the reflected light signals and provide them to the display controller for application.

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Barkan et al. taken with Zouzoulas et al. in view of Shay **does not teach** said scanning beam system wherein the display controller modulates the visible light source to produce a variable displayed pattern of light on the field of view.

Barkan et al. taken with Zouzoulas et al. in view of Shay teaches a scanned beam image capture device, comprising a visible light source.

Saito et al. **teaches** a computer assisted holographic display apparatus (col. 3, lines 16-63); Saito et al. further **teaches** a display controller for modulating the visible light source to produce a variable displayed pattern of light on the field of view (col. 13, lines 59-67).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to Barkan et al. taken with Zouzoulas et al. in view of Shay the feature as taught by Saito et al. in order to put in place the means to facilitate manipulating the light source to in turn control the images displayed.

4. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Scott (USP 3,699,245).

Relative to claim 54, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** the scanned beam image capture device wherein the scan pattern includes a raster pattern.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

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Scott **teaches** a pictorial system, having high resolution imagery at all object distances (col. 1, lines 6-68 and col. 2, lines 1-68) Scott further **teaches** a scanned beam image capture device wherein the scan pattern includes a raster pattern (col. 8, lines 7-21).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Scott in order to provide the means to scan an image (e.g. interlaced) by stepping down, line-by-line, through the storage medium that contains the data lines that make up an image to be displayed.

5. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Yakovlev et al. (USP 6,483,595).

Regarding claim 55, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** the scanned beam image capture device wherein the scan pattern includes a linear scan pattern.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Yakovlev et al. **teaches** a three dimensional optical scanner (col. 2, lines 53-67 and col. 3, lines 1-59); Yakovlev et al. further **teaches** the scanned beam image capture device wherein the scan pattern includes a linear scan pattern (col. 6, lines 20-27).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay

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and further in view of Saito et al. the feature as taught by Yakovlev et al. in order to provide for an optical scanner for obtaining three-dimensional geometric information from a surface.

6. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Dvorkis et al. (USP 6,186,400).

Regarding claim 56, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** a scanned beam image capture device wherein the scan pattern includes a multi-axis scan pattern.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Dvorkis et al. **teaches** a bar code reader with an integrated scanning component (col. 2, lines 22-67 and col. 3, lines 1-61); Dvorkis et al. further **teaches** a scanned beam image capture device wherein the scan pattern includes a multi-axis scan pattern (col. 7, lines 41-48).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Dvorkis et al. in order to accommodate two high speed scanning arrangements to create a beam which scans in more than one direction.

Relative to claim 57, Dvorkis et al. further **teaches** a scanned beam image capture device wherein a computer instruction include instruction for decoding linear bar code symbols (col. 1, lines 52-67 and col. 2, lines 1-14 and col. 7, lines 41-48).

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7. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Van Amstel (USP 5,013,108).

Regarding claim 59, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** a scanned beam image capture device wherein the light source includes a laser diode.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Van Amstel **teaches** an optical scanning device and mirror correction system (col. 2, lines 245-68 and col. 3, lines 1-23); Van Amstel further **teaches** a scanned beam image capture device wherein the light source includes a laser diode (col. 3, lines 49-50).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Van Amstel in order to provide an adequate light source for the light scanning beam.

8. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Heffelfinger et al. (USP 6,750,457).

Regarding claim 60, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** a scanned beam image capture device wherein the beam director includes a scanning mirror.



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Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Heffelfinger et al. **teaches** a system for high throughput analysis (col. 5, lines 13-63);

Heffelfinger et al. further **teaches** a scanned beam image capture device wherein the beam director includes a scanning mirror (col. 8, lines 66-67 and col. 9, lines 1-5).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Heffelfinger et al. in order to direct the scanning beam to the next stage of the scanning optics.

9. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and still further in view of Ackley (USP 6,155,490).

Regarding claim 61, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** a scanned beam image capture device wherein the scanning mirror includes a MEMS scanning mirror.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Ackley **teaches** a microelectromechanical systems scanning mirror for a laser scanner (col. 2, lines 67-68 and col. 3, lines 1-49); Ackley further **teaches** a scanned beam image capture device wherein the scanning mirror includes a MEMS scanning mirror (col. 5, lines 9-22).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Ackley in order to provide a MEMS device that serves as a scanning mirror for the optical imaging system in that the MEMS device would provide a substantially reduces size than mirrors of conventional design.

10. Claims 75-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. as applied to claim 53 in item 3 hereinabove, and further in view of Parulski et al. (USP 5,285,237).

Regarding claims 75, Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. **does not teach** a method of executing a visible transaction comprising the step of projecting a visible representation the presentation data onto the surface.

Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. teaches a scanned beam image capture device, comprising a visible light source for producing a variable displayed pattern of light on a field of view.

Parulski et al. **teaches** a photoprint retaining platen for digitizing an image scanner (col. 3, lines 45-68 and col. 4, lines 1-56); Parulski et al. further **teaches** a method of executing a visible transaction comprising the step of projecting a visible representation the presentation data onto the surface (col. 7, lines 14-26).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Barkan et al. taken with Zouzoulas et al. in view of Shay and further in view of Saito et al. the feature as taught by Parulski et al. in order to put in place the means to project an image onto a display surface.

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Relative to claim 76, Barkan et al. further **teaches** the method of executing a visible transaction wherein the step of optically interrogating a surface includes capturing a bar code symbol (col. 4, lines 10-16).

*Allowable Subject Matter*

11. Claims 58, 62-66 and 77-78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claim 58, the major difference between the teachings of the prior art of record (USP 6,095,421, Barkan et al.; USUP 5,900,886, Shay; USP 5,668,648, Saito et al.; USP 5,285,237, Parulski et al. and USP 5,059,778, Zouzoulas et al.) and that of the instant invention is that said prior art of record **does not teach** a scanned beam image capture device wherein the first computer instructions include instructions for decoding two dimensional symbols.

Relative to claim 62, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a scanned beam image capture device wherein the variable displayed pattern of light includes a finder pattern.

Relative to claim 63, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a scanned beam image capture device wherein the variable displayed pattern of light includes human readable indicia.

Relative to claim 66, the major difference between the teachings of the said prior art of record

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and that of the instant invention is that said prior art of record **does not teach** a scanned beam image capture device wherein a second computer instructions include a bitmap corresponding to the variable displayed pattern of light.

Relative to claim 77, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** the method of executing a visible transaction wherein the step of determining a set of presentation data includes determining that a decode did not occur.

### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,854,655	Barkan
U. S. Patent No.	6,538,625	Tidwell et al.
U. S. Patent No.	4,400,740	Traino et al.

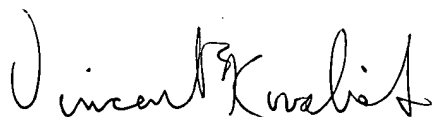
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***To Respond***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

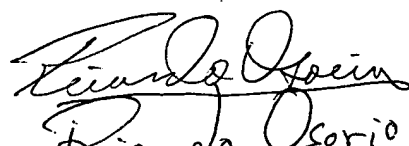
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vincent E. Kovalick

August 30, 2005



Ricardo Osorio  
PRIMARY EXAMINER